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# PATIENT-NURSE DEPENDENCY PAEDIATRICS

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1963

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# PATIENT NURSE DEPENDENCY

# PAEDIATRICS

## An Analysis of Survey Data from Three Public Hospitals in Christchurch

by the

**Operational Research Unit.**

**Department of Health**

New Zealand
Special report series

**1963**

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# FOREWORD

by Dr H. B. Turbott, I.S.O., M.B., Ch.B., D.P.H.,
Director-General of Health

This report is one of a series concerned with a survey of patient nurse dependency made in three hospitals administered by the North Canterbury Hospital Board by the Operational Research Unit with the active co-operation of the Board.

In general each report covers a clinical specialty. Since it deals with only part of the survey data it is best considered with others in the series. The information in the report is of wide interest and I hope it will help many hospital administrators.

Reports already published have shown the worth of operational research methods in hospital planning and organisation. In this important work of giving the best possible hospital care to all who need it with resources which are often limited, the words of Charles Steinmetz are well understood -

"Co-operation is not a sentiment - it is an economic necessity".

I am pleased to record the helpfulness of the North Canterbury Hospital Board not only in assisting with the survey but also in implementing many of the recommendations.

H. B. Turbott.

# PREFACE

This report is one of a series of administrative papers written by the Operational Research Unit to make recommendations to the North Canterbury Hospital Board and the Department of Health on the provision and organisation of hospital accommodation on the basis of survey data.

It will be well understood by workers in operational research in hospitals that we are indebted to the work of others - the Nuffield Provincial Hospitals Trust, the Operations Research Division of The Johns Hopkins Hospital and the Oxford Regional Hospital Board to name only three.

We would thank for their co-operation and assistance -

the nurses in charge of the wards of Christchurch, Princess Margaret and Burwood Hospitals who daily recorded the patient data and assessed the dependencies;

other members of the nursing staffs of the hospitals especially Mrs M.E.F. Chambers, Matron-in-Chief, and Miss J. Taylor and Miss S. C. I. Rolls, Matrons of Princess Margaret and Burwood Hospitals;

Dr T. Morton, Medical Superintendent-in-Chief and Dr C. Dick and Dr J. H. McIntyre, Medical Superintendents of Princess Margaret and Burwood Hospitals;

Mr G. Laurenson, Secretary of the Board and his staff.

Acknowledgment is made of the help received from -

Dr R. M. Williams, Director, Applied Mathematics Laboratory and his staff especially with statistical analysis and ccmputer programming;

Mr J.P.M. Cornwall, Senior O. & M. Officer, State Services Commission, in the preparation of Parts 1 to 5 of the reports.

The Operational Research Unit personnel during the survey were:

| | |
|---|---|
| Dr I. J. Jeffery, | Physician - Director |
| Miss Shirley M. Lowe, | Nurse Member |
| Mr L. V. Chaplin, | Work Study Member |
| Mr D. Blakeley, | Survey Liaison Officer |
| Mr C. Gardiner, | Medical Statistician. |

The report on paediatrics was written in consultation with Dr F. T. Shannon, Paediatrician to the North Canterbury Hospital Board.

It is pleasant to recall the courtesy and co-operation given by the North Canterbury Hospital Board and the staff. The survey was possible only because of this willing assistance and the credit for any worthwhile results which are achieved is due in no small measure to the Board.

**6.1 Introduction** - This part of the report concerns those patients in the sample who were 'Paediatric'. This term has been taken to refer to children not yet 13 years old. A separate report has been devoted to them because hospital patients of this age range have needs which are characterised by age as well as by the clinical speciality.

In Christchurch, Princess Margaret and Burwood hospitals there are two wards designated as childrens wards. They are contiguous wards at Christchurch Hospital and provide 70 beds and cots between them. As a rule they serve children who are 12 years old and under. Other children of the same age range are treated in other wards in the three hospitals. There is no hard and fast allocation of children to a specific ward on admission and except where the word 'paediatric' is modified in the report it refers to children in all specialities and not merely to those who are medical admissions.

As with other parts of the report, this Part should be considered with Parts 1,2 and 3 which refer generally to the survey.

**6.2 The Sample** - The sample is a one-in-three random sample and consists of 273 children who were in Christchurch, Princess Margaret or Burwood hospital at the start of the survey or admitted during it.

The number of children in hospital at the start of the survey, during the survey and at the end of it is given in Table 1 by hospital and type of admission, and in Table 2 by hospital and ward.

The survey covered 88 days for Christchurch Hospital and 86 and 91 days for Princess Margaret and Burwood Hospitals.

**6.21 Observations -**

1. The children were 273 of the 1,565 patients of all ages in the sample.
2. Christchurch, Princess Margaret and Burwood Hospitals treated 251, 17 and 5 children respectively of the sample of 273.
3. The children were observed in 13 wards of Christchurch Hospital, 4 wards of Princess Margaret, and 1 ward of Burwood.

**6.22 Comments -**

1. The children were 17.4% of all patients in the sample.
2. Christchurch treated 92% of the children and Princess Margaret and Burwood 6.2% and 1.8% respectively.
3. The admission rate of the sample during the survey was 228 in 88 days for Christchurch and is equivalent to 2,837 children annually. (three times the one-in-three sample.) Corresponding annual rates for Princess Margaret and Burwood are 216 and 60.
4. The two children's wards 9A and 9B taken together account for 177 of the 273 children or 64.8%.

**6.3 The Children** - This section analyses data associated with admission and discharge. Where possible the diagnosis on discharge is used. Otherwise the provisional diagnosis is taken.

**6.31 Sex and Age-Groups** - The following age-groups are used:

(a) Under 1 year
(b) 1 and under 2 years
(c) 2 and under 3 years
(d) 3 and under 4 years
(e) 4 and under 5 years
(f) 5 to 9 years
(g) 10 to 12 years

The children are given by sex and age-group for each hospital in Table 3.

**6.32 Type of Admission** - The numbers of emergency and waiting-list admissions are given by hospital in Table 4 which also gives the numbers of children having surgery.

**6.33 Reason for Admission** - Reasons for admission were recorded as -

(a) therapy
(b) for investigation
(c) infectious
(d) other

In the survey '(c) infectious' was used only for patients who were admitted because of an infectious condition.

The number in each group is given by hospital in Table 5.

**6.34 Children having Surgery** - The number of children having surgery is given for emergency and waiting-list admissions by hospital in Table 4. 'Surgery' is defined in Part 2.

**6.35 Disease-Groups** - The number of children in each of the more frequently occurring disease-groups is given by hospital for emergency and waiting-list admissions in Table 6.

**6.36 Observations -**

1. There were 143 boys and 130 girls in the sample.
2. Children in all seven age-groups were treated in Christchurch but in only three and four age-groups in Princess Margaret and Burwood.
3. All of the children aged 1 to under 4 years were treated in Christchurch as were all but one child 4 and under 5 years and 3 children under 1 year.
4. 10 of the 17 children treated in Princess Margaret were aged 5 to 9 years, and 5 were aged 10 to 12 years.
5. Of the 273 children, 168 were emergency admissions and 105 waiting-list.
6. 224 children were admitted for therapy and 41 for investigation.
7. 250 were admitted from home and 234 were discharged home: 12 were admitted from and 5 were discharged to another public hospital.
8. 3 children were admitted from and 1 child was discharged to a private hospital.
9. There were 6 deaths and 241 discharges in the sample during the survey period.
10. Of the 241 children discharged, 166 were referred to their own doctor, 73 to 'other' and one referral was not stated.
11. The discharge in the case of one child was delayed for social reasons and in the case of 2 children for some administrative action.
12. Commonly occurring disease-groups were -

| | | |
|---|---|---|
| (i) | hypertrophy of tonsils and adenoids | (Code 510-511) - 44 children |
| (ii) | accident, poisoning and violence | ( " 800-999) - 31 children |
| (iii) | appendicitis | ( " 550-553) - 27 children |
| (iv) | congenital malformations | ( " 750-779) - 23 children |
| (v) | eye diseases | ( " 370-389) - 17 children |
| (vi) | symptoms referred to systems or organs | ( " 780-795) - 16 children |
| (vii) | abdominal hernia | ( " 560-561) - 12 children |
| (viii) | skin diseases | ( " 690-698) - 12 children |
| (ix) | diseases of urinary system other than nephritis and nephrosis | ( " 603-609) - 11 children |

13. 140 children had surgery. 51 of them were emergency admissions and 89 were waiting-list.

6.37 Comments -

1. The sexes were equally distributed in all age-groups except in the group 1 and under 2 years where boys predominated (18 to 8).
2. 40.3% of the children were aged 5 to 9 years and 16.8% were aged 10 to 12 years. 22.7% of the children were under 2 years and 13.2% were under 1 year. 88.2% of the children treated at Princess Margaret were over 5 years of age.
3. All 17 admissions to Princess Margaret were emergency admissions.
4. All 5 admissions to Burwood were waiting-list admissions.
5. 61.5% of all admissions were emergency and 38.5% were waiting-list.
6. 82% of the children were admitted for therapy and 15% for investigation. 1.1% were admitted as 'infectious'.
7. 91.6% were admitted from home and 97.1% of the 241 discharges were discharged there. 6.2% of the children were transferred from one public hospital to another.
8. On discharge, 68.9% of the children were referred to their own doctors and 30.3% were referred to 'other' which included out-patient clinics.
9. Admissions with hypertrophic tonsils and adenoids were more than 16% of all admissions. The group 'accidents, poisoning and violence' was responsible for 11% and 'appendicitis' for nearly 10%. These three disease groups were responsible for 37% of all admissions in the survey.
10. 51.3% of the 273 children had surgery as did 30.4% and 84.8% of emergency and waiting-list admissions. The percentages of children in Christchurch, Princess Margaret and Burwood having surgery were 51.4, 47.1 and 60. The numbers of children in the last two hospitals were small, however, compared with the number in Christchurch.
11. None of the children discharged was referred to a medical social worker or to a district nurse.

6.4 **The Load of Patient Days** - This section deals with the number of days spent in hospital during the survey period by the children in the sample. The analysis of patient days by dependency, however, is referred to in Sections 6.6 and 6.7.

6.41 **Hospital and Ward** - The number of patient days is given by hospital and ward in Table 7.

6.42 **Sex and Age-Group** - Patient days are given by sex, age-groups and hospital in Table 8.

6.43 **Type of Admission** - Patient days are given for emergency and waiting-list admissions by hospital in Table 9.

6.44 **Reason for Admission** - Patient days are given by reason for admission and hospital in Table 10.

6.45 **Children having Surgery** - Table 9 which gives patient days by type of admission and hospital also gives the patient days for children having surgery.

6.46 **Disease-Group** - Patient days for the more frequently occurring disease-groups are given by type of admission and hospital in Table 11.

6.47 **Speciality** - The children who were discharged or who died during the survey period and the corresponding numbers of patient days are given by speciality in Table 12. The disposition by speciality was made by considering the consultant responsible for the care of the child and in any doubtful case, the clinical history.

**6.48 Observations -**

1. The children accounted for 2,449 patient days of the 22,667 recorded during the survey period for patients of all ages in the survey.
2. Of the 2,449, 2,309 were spent in Christchurch and 123 and 17 were spent in Princess Margaret and Burwood.
3. The load in the two childrens wards at Christchurch was 1,723 patient days of which 560 were spent in the babies ward (ages 0 - 2 years) and 1,163 in the other ward (ages 2 - 12 years).
4. Other wards in which the children were treated were notably
   (a) at Christchurch
      (i) Ward 12A- 190 patient days.
      (ii) Ward 1 - 99,
      (iii) Ward 13A- 91,
      (iv) Ward 12B- 59, and
      (v) Ward 11 - 49,.
   (b) at Princess Margaret
      (i) Ward A4 - 81 patient days.
5. The disease-groups which predominate in contributing patient days are -

| | | | |
|---|---|---|---|
| (i) | congenital malformations | (Code 750-779)— | 440 patient days |
| (ii) | appendicitis | ( " 550-553) - | 251 patient days |
| (iii) | accidents, poisoning, violence | ( " 800-999) - | 197 patient days |
| (iv) | symptoms, ill defined conditions | ( " 780-795) - | 168 patient days |
| (v) | hypertrophy of tonsils, adenoids, abscess | ( " 510-511) - | 160 patient days |
| (vi) | other urinary disease | ( " 603-609) - | 133 patient days |
| (vii) | other disease bone and joint | ( " 731-740) - | 110 patient days |

6. The specialities reponsible for the higher numbers of patient days recorded for the discharges and deaths were -
   (i) orthopaedic surgery with 469
   (ii) general surgery with 450
   (iii) general medicine with 441
   (iv) genito-urology with 238

   Other observations are made in Section 6.7.

**6.49 Comments -**

1. The children accounted for 10.8% of the patient days spent by all patients during the survey period in the three hospitals.
2. Christchurch Hospital took 94.3% of the children's inpatient load.
3. The two childrens wards at Christchurch took 74.6% of the load of Christchurch Hospital and 70.4% of the paediatric load of the three hospitals.
4. The paediatric load at Christchurch is equivalent to 6,927 patient days in 88 days. (three times the one-in-three sample).

   This corresponds to 78.7 beds at 100% occupancy or 87.4 beds at 90% and 92.6 beds at 85%.
5. The equivalent paediatric loads at Princess Margaret and Burwood are 4.3 and 0.6 beds at 100% occupancy, 4.8 and 0.6 beds at 90%, and 5.0 and 0.7 beds at 85%.
6. Boys were responsible for 53.9% of the load and girls 46.1%. The predominant age-groups were 5 to 9 years with 34.3% of the load, 10 to 12 years with 21.9% and under one year with 14.4%. Children under 2 years old contributed 26.1%; boys under 2 years 13.3% and girls under 2 years 12.8%.

   Children 2 to 12 years contributed 73.8%; boys 2 to 12 years 40.5% and girls 2 to 12 years 33.3%.

7. Emergency admissions were responsible for 69% and waiting-list 31%.
8. Admissions for therapy accounted for 74.7%; for investigation 18.1% and infectious 1.5%.
9. Children having surgery were responsible for 46.7% : 43% of these patient days were spent in Christchurch.
10. The 7 disease-groups in section 6.48 (5) are responsible for 1,459 days or 59.6% of the paediatric load.
11. Congenital malformations accounted for 18.1% of the patient days: appendicitis for 10.1% and accidents, poisoning and violence for 8.1%. Hypertrophic tonsils and adenoids, and peritonsillar abscess which was responsible for most admissions (16.1%) accounted for 6.5% of the patient days.
12. Comments on the distribution of patient days by speciality are made in Section 6.7.

**6.5 Length of Stay** - This section deals with the length of stay recorded for the children in the sample who were discharged or who died during the survey period.

**6.51 Patients Discharged** - During the survey period there were 241 discharges and 6 deaths. These are given by hospital in Table 2 and the distribution of their lengths of stay is given in Table 13 and illustrated in Figure 1.

**6.52 Patients Still in Hospital** - The distribution of the numbers of days spent by the children in hospital when the survey was completed is given in Table 14.

**6.53 Observations -**

1. The 247 children who were discharged or who died during the survey spent 2,196 days in hospital.
   The average length of stay was 8.9 days.
   The range was 1 to 89 days.
   The mode was 3 days with 61 children.
   24 children spent 8 days.
2. 228 of the 247 children were treated in Christchurch, 16 in Princess Margaret and 3 in Burwood.
3. 123 children were in hospital 5 days and under: 185, 10 days and under and 214, 15 days and under.
4. 41 children with hypertrophy of tonsils and adenoids (Code 510-511) had an average length of stay of 3.1 days, and a range of 1 to 8 days stay.
5. 24 children with appendicitis (Code 550-553) had an average length of stay of 10.7 days and a range of 3 to 20 days stay.
6. 14 children with eye-diseases, (Code 370-384) had an average length of stay of 6.4 days and a range of 2 to 13 days stay. 13 of the 14 children were admitted with strabismus (Code 384), and had an average length of stay of 6.8 days and a range of 3 to 13 days stay.

**6.54 Comments -**

1. 92.3% of the discharges and deaths were recorded in Christchurch Hospital, and the distribution of length of stay for Christchurch Hospital alone is close to that for the three hospitals taken together.
2. For Christchurch 49.6% of the children stayed 5 days and under, 73.7% 10 days and under and 85.5% 15 days and under. Over 92% of the discharges and deaths had occurred by the 20th day.
3. The mode of 3 days corresponds to the length of stay for tonsillectomy and adenoidectomy.

4. The lengths of stay of 3 days and 4 days together account for 33.6% of the discharges and deaths.
5. The length of stay of 8 days is associated with the diagnoses of appendicitis (8 children) and abdominal hernia (3 children).
6. None of the children discharged was in hospital longer than 89 days. Under 3% of them stayed longer than 30 days.
7. Two long periods in hospital were spent by children who were still in hospital at the end of the survey. One child with a diagnosis of congenital hydrocephalus, (Code 752) had then been in hospital 705 days and the other child with a diagnosis of congenital malformation of bone and joint, (Code 758) had spent 228 days.
8. Apart from these two lengths of stay the children remaining in hospital had lengths of stay of 1 to 75 days with the same general pattern as seen in the case of the discharges and deaths.
9. The 6 completed lengths of stay over 30 days, were spent by children with -
   (a) osteochondrosis (Code 732.6 - 2 children)
   (b) symptoms ill defined conditions (Codes 782.6 and 788.8)
   (c) congenital dislocation of hip (Code 758.0)
   (d) neoplasm, nervous system (Code 237.0)

6.6 **Patient Dependency** - This section deals with the daily dependency of the children in the sample. The definitions of the four dependency categories are given in Part 2.

6.61 **Admission and Discharge** - The dependencies of the children on admission for those admitted during the survey period are given by type of admission for each hospital in Table 15. Similar data for discharges and deaths occurring in the survey period are given in Table 16.

6.62 **Hospital and Ward** - The number of patient days spent by the children in each dependency category is given by hospital and ward in Table 17.

6.63 **Age-Group** - The number of patient days spent by children in the seven age-groups is given by hospital in Table 18.

6.64 **Day of Week** - Mean values for the number of children in each dependency category for each day of the week are given by hospital in Table 19. The mean values given in this table have been obtained by taking the arithmetical mean of three times the one-in-three sample values. Care should be taken therefore in making any comparison between the values shown in this table and those given for sample of children only.

6.65 **Pre-Discharge Dependency** - A frequency distribution of the number of days spent before discharge in which a child did not receive any item of special care under the headings, mental state, dressings, suction, orthopaedic treatment, special drugs, I.V. fluid, oxygen, major observation and special nurse is given by reason for admission in Table 20 and by groups of admissions in Table 21. The distribution of the 241 discharges is graphed in Figure 1.

6.66 **Observations** -

1. On admission, of the 249 children, 98 were in Category 2, 96 in Category 3, 45 in Category 1, and 10 in Category 4.
2. On discharge, of the 241 children, 128 were in Category 2, 72 in Category 3, 37 in Category 1, and 4 in Category 4.
3. Of the 2,449 patient days recorded during the survey period, 2,180 were in Category 2 or 3, 238 were in Category 1 and 31 in Category 4.
4. Children under 2 years old spent 611 patient days in Category 3, 26 in Category 4, and 3 in Category 2.
5. Children 2 years of age and over spent 1,172 days in Category 2, 394 in Category 3, 238 in Category 1, and 5 in Category 4.
6. Other observations are made in Section 6.7.

6.67 **Comments** -

1. On admission 39.4% of the children were in Category 2, 38.5% in Category 3, 18.1% in Category 1, and 4.0% in Category 4.
2. On discharge 53.1% were in Category 2, 29.9% were in Category 3, 15.3% in Category 1, and 1.7% in Category 4.
3. In all wards taken together 9.7% of patient days were in Category 1, 48% in Category 2, 41% in Category 3 and 1.3% in Category 4.

   In the babies ward, 9A, 99.1% of the patient days were in Category 3 and only 2 of the 560 days were in Category 4.

   In the other childrens ward, 9B, 72.7% of the patient days were in Category 2, 21.4% in Category 3, 5.8% in Category 1, and only 1 patient day in Category 4.
4. The significance of dependency in the case of children is discussed in Section 6.7 where comments on dependency by day of the week and pre-discharge dependency are also made.

6.7 **Discussion** - This section discusses subjects more appropriately grouped together following the previous sections.

6.71 **Percentage Occupancy** - Together the two childrens wards 9A and 9B in Christchurch Hospital provided 5,169 patient days of care in 88 days. (three times the one-in-three sample of 1,723 patient days). The two wards together have 70 established beds and cots and the percentage occupancy is accordingly 83.9.

Other wards utilise a varying number of beds for children and consequently percentage occupancies have not been stated for these.

6.72 **Equivalent Beds** - At Christchurch the sample of 2,309 patient days represents a load of 6,927 patient days in 88 days. The corresponding load for Princess Margaret is 369 patient days in 86 days, and that for Burwood is 51 patient days in 91 days.

These hospital loads are shown by dependency category in Table 22 which shows the corresponding equivalent numbers of beds at 100%, 90% and 85% occupancies.

In all, the equivalent number of beds in use during the survey period was 83.6 at 100% occupancy, or 92.8 and 98.4 at 90% and 85% occupancies.

If an 85% occupancy is assumed Christchurch provided 92.6 beds, Princess Margaret 5.1 and Burwood 0.7.

6.73 **Bed Turnover** - The 70 beds and cots in the two childrens wards at Christchurch Hospital dealt with 161 children in the sample who were discharged, or who died during the 88 day survey period. The equivalent annual rate for discharges and deaths was 2,003, and the bed turnover was 28.6 children per bed per year.

If the paediatric load of patient days during the survey period is taken as 98.4 beds at 85% occupancy, the equivalent overall bed turnover for paediatrics was 31.3 children per bed per year.

6.74 **The Waiting List**

6.741 **General** - Details of the paediatric waiting list at June 1962, September 1962, and January 1963, have been supplied by the Board and appear by speciality in Table 23.

The discharges and deaths occurring in the sample during the survey period are given by speciality and type of admission with the corresponding patient days spent during the survey period in Table 12.

The following observations and comments are made -

1. The total number of children on the waiting list increased during the period of the survey (say, 3 months) from 476 to 550. In the subsequent four months there was a further increase to 563.
2. It is misleading to consider one overall waiting list value for paediatrics since the several specialties involved have different characteristics of demand.
3. The greatest increase appears in E.N.T. where it has varied from 90 in the 3 months of the survey to 63 in the next 4 months.
4. The speciality showing the next largest waiting-list demand is ophthalmology with 98 children. The trend here is negative over the 3 months of the survey with a range of 121 to 100 at which level it is static - 98 at January 1963.
5. General medicine had no waiting list and general surgery had no children waiting at January 1963. Orthopaedic surgery and genito-urology had 6 in each case on that date.
6. Eliminating the waiting list or reducing it to an acceptable, almost 'on demand' service is not only a matter of providing the beds as discussed below, for well recognised complex issues are involved. The availability of consultant services in and outside the theatre is one example and others are the availability of facilities, and the amount of care provided by medical practitioners in private practice and by private hospitals, and out-patient services. It is emphasised that none of these factors has been studied in this survey.

   In order to give a lead to bed demand the conditions which obtained during the survey have been assumed to be constant. It has also been assumed that the numbers of children are 'true' i.e. that the waiting-list is real and that admission would be accepted if offered.

6.742 **E.N.T.** - In the 88 days of the survey at Christchurch Hospital 129 E.N.T. waiting-list children were discharged. The mean length of stay was 3.1 days and the predominant diagnosis was hypertrophic tonsils and adenoids, (Code 510-511), with 117 patients. On the basis of the survey experience the 453 children on the waiting-list at January 1963 require 1,422 patient days of care, which is equivalent to 3.9 bed years at 100% occupancy or 4.3 at 90% and 4.6 at 85%. A 90% occupancy for these waiting-list admissions does not appear too high and if this is assumed, the back log of E.N.T. children on the waiting-list at January 1963 could be met by making a further 8 or 9 beds available for a period of six months. The elimination of the E.N.T. waiting-list alone would reduce the number of children on the list from 563 to 110.

The increase in the waiting-list during the survey period was 90. This rate of increase is equivalent to an annual rate of 373. At 90% occupancy and at the same rate of discharge as in the survey period, the growth in the waiting-list could be checked by an additional permanent 3.6 beds. The smaller increase subsequent to the survey would require, say, an additional permanent 2 beds.

6.743 **Ophthalmology** - In ophthalmology 48 waiting-list children were discharged in 88 days. The mean length of stay was 5 days and the predominant diagnosis was strabismus Code (384) with 13 patients.

On the basis of the survey experience the 98 children on the waiting-list at January 1963 would require 490 patient days of care which is equivalent to 1.5 bed years at 90% or 1.6 at 85%. Again 90% occupancy appears to be a practicable level of working.

The back log of opthalmic waiting-list children as at January 1963 would be met if 3 to 3.3 beds could be made available to work at 85-90% occupancy for 6 months.

Once this back-log has been met the present bed allocation is sufficient for the present demand.

6.744 **G.U.** - In genito-urology 33 waiting-list children were discharged in 88 days. The mean length of stay was 14.1 days and the predominant diagnosis, Other Dis.(Code 600-609). From the survey data the 6 children on the list at January 1963 would require 85 days of care which could be met by 0.23 bed years at 100% occupancy or 0.26 at 90% and 0.27 at 85%.

The back-log would be met by using 1 bed at 85-90% occupancy for about 3 months.

Again once the back-log has been met the present bed allocation is sufficient for the present demand.

6.745 **Orthopaedic Surgery** - In Orthopaedic Surgery 51 waiting-list children were discharged in 88 days. The mean length of stay was 11.7 days and the most common diagnosis benign neoplasm (Code 225) with 4 children. From the survey data the 6 children on the waiting-list would require some 70 patient days of care which is equivalent to 0.2 bed years at 100% occupancy or, say, 0.21 bed years at 90% or 85% occupancy.

Thus the back-log would require 1 bed at 85-90% occupancy for about 3 months.

Once the back-log has been met the present bed allocation is adequate for the present demand.

6.746 **Summary** - A summary of the additional beds required for the present demand under Sections 6.742 to 6.745 is as follows -

1. E.N.T. - 8 to 9 beds for 6 months
2. Ophthalmology - 3 to 3.3 beds for 6 months
3. G.U. - 1 bed for 3 months
4. Orthopaedic Surgery - 1 bed for 3 months

An assessment of future bed demand is made in Section 6.76.

6.75 **Paediatric Dependency** - Young children are dependent upon others for assistance with bodily functions whether or not they are ill or in hospital. An analysis of dependency by category which might be useful in the case of adults is equivocal when it comes to assessing the necessity for hospital in-patient care of children. In order to assess the dependency which is peculiar to the hospital ward staff and services, the frequency distributions of Tables 20 and 21 have been prepared. These distributions concern the number of consecutive days immediately before discharge on which a child did not receive any of the recorded items of special nursing care under the headings mental state, dressings, drainage, suction, orthopaedic treatment, special drugs, I.V. fluid, oxygen, major observation and special nurse. A further analysis has been made in Table 21 in the case of children for whom the only recorded special item is a minor dressing. This is defined in Part 2 as 'simple dry dressings not more than once daily. Included are removal of clips, minor skin treatments and perineal toilet'.

The following observations and comments are made on the data in the tables -

1. 138 of the 241 children discharged during the survey were discharged on the same day on which at least one item of special care was recorded.
2. Each of the other 103 children spent a period in hospital immediately before discharge during which no such item of special care was recorded. This period varied from 1 to over 10 days. (The maximum was 53 days).

   The 103 children spent 431 such days with an average of nearly 4.2 days.
3. 138 of the 241 children had one or more operations, and 43 of them spent 169 such days, with an average of nearly 4 days and a range of 1 to 53 days; 95 left hospital on the same day as they received some recorded special care.
4. If a minor dressing is disregarded the 43 children just mentioned are increased to 74, and the 169 days increased to 320, with an average of 4.3 days and a range of 1 to 53 days.

5. In the case of the 103 children who were medical patients or surgical patients not having an operation, 43 were discharged on a day on which some special care was recorded, and 60 spent 262 days when no such care was recorded, to give an average of 4.4 days with a range of 1 to 51 days.
6. The survey sample of 273 children spent 2,449 patient days in hospital during the survey period. On 582 patient days occurring in periods of successive days immediately before discharge, i.e. on 24% of total number of days, there were no recorded items of special nursing care, except perhaps a minor dressing.

   A child may of course be properly in hospital even when no such items of care are given. It is emphasised that the decision as to whether a child should remain in hospital should be made only by the medical practitioner responsible for the child's care. While this is acknowledged and supported, the need for the children to spend this large percentage of total in-patient time in hospital, when they do not receive any of the specific items of care, should be reviewed. The position is clearer when it is realised that the 24% does not include the patient days spent by children who have only a small plaster cast, but who do not have any other recorded special nursing care.

   The point is again referred to in Section 6.76.

**6.76 Prediction of Demand for Paediatric Beds** – This section of the report records –

1. a base line for further studies by predicting the number of beds needed on a population basis:
2. the effect on this number of beds, if a reduction in bed use indicated as reasonable by the survey data, were made:
3. the proposed number of public hospital paediatric beds to be provided in Christchurch.

**6.761 General** – The prediction of demand for paediatric beds, must take into account factors which limit the value of simple extrapolations of numbers based on present use and population forecasts. Among these factors are –

(a) the changing epidemiological pattern of childhood diseases;
(b) the improvement in techniques which have reduced the need for admission to hospital;
(c) the increasing awareness of the wisdom of treating a child at home whenever possible, and
(d) the wisdom of reducing the length of time spent by a child in hospital.

As far as the North Canterbury Hospital Board is concerned, there is good evidence to suggest that the provision of good facilities for paediatric outpatient activities, would further reduce the number of beds required.

**6.762 Assessment on Population Basis** – Here, the numbers of beds per 100,000 general population which are required for paediatrics in the Board's area are assessed. The level of demand which was indicated by the survey data, has been used with population predictions supplied by the Ministry of Works. Assumptions made include the following –

(a) Private hospitals will continue to take the same type of patient, and the same proportion of the paediatric load, as they did during the survey.
(b) Consultant, nursing and other services, will expand to match the availability of beds.
(c) There will be no significant change in the percentages of children 0-12 years in the predicted populations.
(d) The incidence and treatment of paediatric conditions will not significantly change.

Subject particularly to the foregoing, the following comments are made –

(i) During the survey the equivalent number of beds in use was 83.6, 92.8 or 98.4 depending upon whether the assumed percentage occupancy is 100, 90 or 85.

(ii) The percentage occupancy of the 70 beds in the two childrens wards was about 85. The nature of the paediatric work in some specialities, e.g. E.N.T. and ophthalmology, suggests that a 90% occupancy was often attained. In all, 85% is a conservative level, and accordingly assessments are made for both 85 and 90 percentage occupancies.

(iii) The population at the time of the survey has been taken as 274,000. The equivalent bed provision made by the three survey hospitals, excluding plastic surgery, obstetrics and the medical unit, was 34 to 36 beds per 100,000 general population, depending on whether 90% or 85% occupancy is assumed.

(iv) Christchurch Hospital alone provided the equivalent of 32 or 34 beds per 100,000 population at 90% and 85% occupancies.

(v) As a matter of interest, at the time of a census of hospital patients in all hospitals in the Boards area in April 1961, Christchurch Hospital was treating 55.1% of the children 0 – 12 years of age. If this percentage were applicable at the time of the survey, the overall provision of paediatric beds for the Boards area, was 58 or 61 per 100,000 population assuming 90% or 85% occupancy.

(vi) A prediction of beds for paediatrics at the three survey hospitals apart from the medical unit, plastic surgery and obstetrics, is given below for the given years and percentage occupancies.

| Year | Population in Thousands | Percentage Occupancy | | |
|---|---|---|---|---|
| | | 100 | 90 | 85 |
| 1962 | 274 | 83.6 | 92.8 | 98.4 |
| 1966 | 300.7 | 91.7 | 101.8 | 108.0 |
| 1971 | 337.2 | 102.9 | 114.2 | 121.1 |
| 1981 | 419.7 | 128.1 | 142.1 | 150.7 |

The above numbers of beds are given for the conditions obtaining at the time of the survey.

6.763 **Revised Assessment by Population** – In section 6.6 it is recorded that 24% of all paediatric patient days were spent in ranges of consecutive days immediately before discharge on which the item of special nursing care was given. It may also be recorded that over 18% of all paediatric patient days were made up by such days in excess of one. The very method of the recording of care by recording the most dependent state during the previous 24 hours, makes the entries overstate rather than understate the care given. Further, there were also days on which some item of special care was of such a nature, as to raise the question as to whether the child could have been discharged sooner.

It therefore seems reasonable to suggest that had suitable outpatient service been available it would have been possible to have avoided the children spending 20% of the time in hospital. If this were able to be done in future the prediction of paediatric beds on a population basis would become –

| Year | Percentage Occupancy | | |
|---|---|---|---|
| | 100 | 90 | 85 |
| 1962 | 66.9 | 74.2 | 78.7 |
| 1966 | 73.4 | 81.5 | 86.4 |
| 1971 | 82.3 | 91.4 | 96.9 |
| 1981 | 102.5 | 113.7 | 120.6 |

**6.764 Recommended Provision** – The number of beds which will be needed in future is greatly influenced by the overall organisation of the paediatric services. The organisation of paediatric inpatient care is discussed in Section 6.77, but here it should be noted that –

(a) a current proposal of the Board, is to augment paediatric outpatient services to enable some children to be treated as outpatient instead of inpatient as at present, and some children to be discharged earlier.

(b) the experience of paediatricians in Christchurch has been consistant with reports from overseas that the number of paediatric beds is not a simple function of the population. This is demonstrated by the fact that in 1960 the number of children admitted to the three survey hospitals had not increased in the previous eight years, in spite of an increase in the population of the order of 19.5%. Some reasons postulated for this stasis have already been mentioned in section 6.761.

(c) Waiting-list values indicate that once the back-log has been eliminated, the present number of beds is adequate for all paediatric care, except E.N.T. where some 3 – 4 additional beds are needed under present conditions. Any betterment of the rate of discharge would reduce the number of additional beds needed.

From the facts known at present, it is unrealistic and wasteful to provide paediatric beds based upon population forecasts and the present level of bed use. It is considered reasonable for the Board to plan for 100 beds to serve that part of paediatrics now undertaken by Christchurch, Princess Margaret and Burwood, except for the medical unit, plastic surgery and obstetrics.

The 100 beds are expected to be sufficient until at least 1975, and at 1966 and 1971 they are expected to contribute paediatric beds at the rate of 33 and 30 beds per 100,000 general population.

**6.77 The Organisation of Paediatric Inpatient Care** – The siting of the beds required for paediatric inpatient care in the Christchurch public hospitals is a policy matter for the Board and the Department of Health to decide. The survey date, however, does highlight features of the present organisation of paediatric service, and the following comments are made to assist the Board and the Department in deciding the issue.

It should be remembered that the medical unit at Princess Margaret and the plastic surgery and obstetric wards at Burwood are not covered by the comments.

(1) The 819 children aged 0 – 12 years who were treated as inpatients in the three hospitals during the survey period, were 17.4% of all patients, and they received 10.8% of the total hospital inpatient care measured as patient days.

(2) The two childrens wards with 70 beds gave 70.4% of the patient days of care.

(3) The remaining 29.6% of patient days were spent in 16 other wards.

(4) Paediatric care was thus spread among 3 hospitals and 18 wards.

(5) In the 88 days of the survey at Christchurch Hospital, 11 different consultants visited the 30-bed babies ward, 9A, and 22 different consultants visited the 40-bed childrens ward 9B.

(6) The younger children in the age range 0 – 2 years were admitted with few exceptions to Ward 9A. Presumably an important reason for this was the facilitation of consultation with the paediatrician.

(7) Children 2 to 12 years old were admitted to either the childrens ward 9B or some other ward appropriate to the speciality involved. Except in the cases of children with infectious diseases or children admitted to the recovery ward, the decision to admit a child to Ward 9B or another ward was not made on the basis of pathology or dependency.

(8) As far as pathology and dependency are concerned there are no apparent contra-indications to treating the children in one hospital, and in one unit or group of childrens wards if this arrangement is desired.

(9) Some advantages to be gained by treating the children in one hospital, are indicated by the data in Table 19 which shows the mean daily number of children in each of the three hospitals by the day of the week.

The following comments are made -

(a) The variation in the mean daily numbers for the three hospitals considered together, namely 72.0 to 92.1 or 20.1 was the same as the variation for Christchurch Hospital alone, namely 67.2 to 87.0 or 19.8.

(b) Up to 4 intensive care beds would be required for the children in the sample in the three hospitals considered singly, but 2 intensive care beds would be sufficient if the children were treated in one hospital.

(c) The variation in the mean values for Category 1 children for the three hospitals together, was 6.3 to 10.2 or 3.9 and for Christchurch Hospital alone, 3.9 to 7.5 or 3.6.

(d) The data in Table 19 refer to mean values only, and therefore do not show the variation in numbers for any given day of the week. Taken with the fact that admissions to Princess Margaret were all emergency and those to Burwood all waiting-list, however, the data, support grouping the children for care on the grounds of facilitating efficiency of working and predicting bed demand.

(10) The bed demand is large enough to warrant the grouping of children by speciality. The numbers of beds required according to Table 12 could be grouped broadly into one medical and two surgical units. It is emphasised that the numbers in the table might need adjusting for any differential reductions in patient days, but on the basis of the table, 100 beds would be grouped broadly as -

| | | |
|---|---|---|
| (i) | General Medicine | 23 beds |
| (ii) | General Surgery | 24 beds |
| (iii) | Orthopaedic Surgery | 25 beds |
| (iv) | Genito-urinary | 13 beds |
| (v) | Ophthalmology | 4 beds |
| (vi) | E.N.T. | 11 beds |

(11) There is general agreement that children in their own interests should not be in hospital any longer than necessary. The proposal of the Board to augment paediatric outpatient services is expected to enable some children to be discharged earlier as outpatients in the conjoint care of the family doctor and the consultant, and other children to be spared the necessity of admission.

Although the survey did not sample outpatient services it is clear that improvements in them would reduce the paediatric inpatient demand. The practicability of avoiding 20% of the paediatric patient days of the survey period is mentioned in section 6.763. It will be appreciated that this percentage has been taken as a conservative estimate of the diversion of inpatient time which could be made if consultants and family doctors could work together with better outpatient facilities and organisation.

The Board and the Department are recommended to facilitate an exploratory study of the results of providing adequate paediatric outpatient services in Christchurch. There are a number of repercussions which need to be assessed along with the direct advantages of avoiding admissions and reducing lengths of stay. It is believed that a happy cooperation between general practitioners and hospital consultants will enable such a scheme to work with advantage to all concerned, but in the first place there is much to be gained by setting up the service and evaluating the result after a year's operation.

(11) It is recommended therefore that the Board and the Department study the results of re-organising the present paediatric services along the proposed lines of augmenting outpatient facilities and improving inpatient accommodation and that a conjoint committee of the Board and the Department be set up to facilitate the study. The data of the paediatric dependency study could prove useful in some matters of organisation and design, and the outcome of the study could be prototype paediatric accommodation, and outpatient services.

**6.8 Conclusion and Recommendations** - This part of the report attempts to assess the dependency of children in hospital upon the ward nursing staff and upon some ward services. As in other parts of the report there is seen the difficulty in deciding when a patient should leave the hospital. There are factors entering into the decision in the case of a child simply because he is a child. It is again emphasised that the decision to discharge any child must properly remain in the hands of the medical practitioner responsible for the child's care. Nevertheless this study which is an epidemiological one contains data which can assist in this and other decisions. In line with the comments and discussion in the report the following recommendations are made -

It is recommended that -

1. children who are not receiving any special nursing care be discharged sooner.
2. a system of recording progressively a child's state of dependency be introduced to assist consultants in discharging or transferring children.
3. all paediatric inpatients of the clinical specialties surveyed be admitted to one hospital.
4. a paediatric unit or group of wards supplying 100 beds be provided for these children and the beds be grouped by speciality.
5. the paediatric outpatient services be improved as proposed by the Board and all specialties be encouraged to use the services to best advantage.
6. the Board and the Department conjointly plan prototype paediatric accommodation and outpatient services.
7. the number of consultants visiting any one childrens ward be reduced.
8. a study be made conjointly by the Board and the Department of the results of re-organising the paediatric services seen after a year's operation.

TABLE 1 NUMBER OF CHILDREN IN THE SAMPLE AT START OF SURVEY, ADMITTED DURING SURVEY AND IN HOSPITAL AT END OF SURVEY BY HOSPITAL AND TYPE OF ADMISSION

| Hospital | Number of Children | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | At Start of Survey | | | Admitted During Survey | | | At End of Survey | | | All | | |
| | E. | W.L. | All | E. | W.L. | All | E. | W.L. | All | E. | W.L. | All |
| Christchurch .. | 11 | 12 | 23 | 140 | 88 | 228 | 19 | 4 | 23 | 151 | 100 | 251 |
| Princess Margaret | 1 | – | 1 | 16 | – | 16 | 1 | – | 1 | 17 | – | 17 |
| Burwood .. | – | – | – | – | 5 | 5 | – | 2 | 2 | – | 5 | 5 |
| All .. | 12 | 12 | 24 | 156 | 93 | 249 | 20 | 6 | 26 | 168 | 105 | 273 |

TABLE 2 NUMBER OF CHILDREN IN THE SAMPLE AT START OF SURVEY, ADMITTED DURING SURVEY AND IN HOSPITAL AT END OF SURVEY BY HOSPITAL AND WARD

| Hospital and Ward | Number of Patients | | | | | |
|---|---|---|---|---|---|---|
| | At Start | Admitted | Discharged | Died | Still in | All |
| Christchurch | | | | | | |
| 1 | 1 | 4 | 5 | – | – | 5 |
| 3 | 1 | 1 | 2 | – | – | 2 |
| 4 | – | 1 | 1 | – | – | 1 |
| 7 | – | 1 | – | – | 1 | 1 |
| 8 | – | 3 | 3 | – | – | 3 |
| 9A | 5 | 56 | 54 | 3 | 4 | 61 |
| 9B | 12 | 104 | 103 | 1 | 12 | 116 |
| 10 | – | 4 | 4 | – | – | 4 |
| 11 | – | 5 | 5 | – | – | 5 |
| 12A | 1 | 18 | 14 | 1 | 4 | 19 |
| 12B | 1 | 5 | 5 | – | 1 | 6 |
| 13A | 2 | 25 | 26 | – | 1 | 27 |
| Rec | – | 1 | 1 | – | – | 1 |
| All | 23 | 228 | 223 | 5 | 23 | 251 |
| Princess Margaret | | | | | | |
| A1 | – | 5 | 5 | – | – | 5 |
| B1 | – | 1 | – | – | 1 | 1 |
| A3 | 1 | – | – | 1 | – | 1 |
| A4 | – | 10 | 10 | – | – | 10 |
| All | 1 | 16 | 15 | 1 | 1 | 17 |
| Burwood | | | | | | |
| 5 | – | 5 | 3 | – | 2 | 5 |
| All | – | 5 | 3 | – | 2 | 5 |
| All | 24 | 249 | 241 | 6 | 26 | 273 |

TABLE 3 THE CHILDREN BY SEX, AGE-GROUP AND HOSPITAL

| Age-Group (Years) | Hospital | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Christchurch | | | Princess Margaret | | | Burwood | | | All | | |
| | M. | F. | All | M. | F. | All | M. | F. | All | M. | F. | All |
| Under 1 | 17 | 16 | 33 | – | 2 | 2 | 1 | – | 1 | 18 | 18 | 36 |
| 1 and Under 2 | 18 | 8 | 26 | – | – | – | – | – | – | 18 | 8 | 26 |
| 2 " 3 | 13 | 11 | 24 | – | – | – | – | – | – | 13 | 11 | 24 |
| 3 " 4 | 8 | 7 | 15 | – | – | – | – | – | – | 8 | 7 | 15 |
| 4 " 5 | 7 | 8 | 15 | – | – | – | – | 1 | 1 | 7 | 9 | 16 |
| 5 – 9 | 49 | 49 | 98 | 6 | 4 | 10 | – | 2 | 2 | 55 | 55 | 110 |
| 10 – 12 | 21 | 19 | 40 | 3 | 2 | 5 | – | 1 | 1 | 24 | 22 | 46 |
| All | 133 | 118 | 251 | 9 | 8 | 17 | 1 | 4 | 5 | 143 | 130 | 273 |

TABLE 4 THE CHILDREN BY TYPE OF ADMISSION, HAVING SURGERY AND HOSPITAL

| Hospital | Surgery | Type of Admission | | |
|---|---|---|---|---|
| | | Emergency | Waiting list | All |
| Christchurch .. | Yes | 43 | 86 | 129 |
| | No | 108 | 14 | 122 |
| | All | 151 | 100 | 251 |
| Princess Margaret | Yes | 8 | – | 8 |
| | No | 9 | – | 9 |
| | All | 17 | – | 17 |
| Burwood .. | Yes | – | 3 | 3 |
| | No | – | 2 | 2 |
| | All | – | 5 | 5 |
| All .. | Yes | 51 | 89 | 140 |
| | No | 117 | 16 | 133 |
| | All | 168 | 105 | 273 |

TABLE 5 THE CHILDREN BY REASON FOR ADMISSION AND HOSPITAL

| Hospital | Reason for Admission | | | | | |
|---|---|---|---|---|---|---|
| | Therapy | Investign. | Infectious | Other | Not given | All |
| Christchurch .. | 211 | 34 | 3 | 1 | 2 | 251 |
| Princess Margaret | 8 | 7 | – | 1 | 1 | 17 |
| Burwood .. | 5 | – | – | – | – | 5 |
| All .. | 224 | 41 | 3 | 2 | 3 | 273 |

TABLE 6 THE CHILDREN BY DISEASE-GROUP, HOSPITAL AND TYPE OF ADMISSION

| Disease-Group | | Hospital | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Code Nos. | Description | Christchurch | | | Princess Margaret | | | Burwood | | | All | | | Per Cent of Total |
| | | E | W.L | All | E | W.L | All | E | W.L | All | E | W.L | All | |
| 510 - 511 | Hypertrophy Ts & As Peri., Tons., Abs | 3 | 41 | 44 | – | – | – | – | – | – | 3 | 41 | 44 | 16.1 |
| 800 - 999 | Accident, poisoning, violence | 25 | 3 | 28 | 3 | – | 3 | – | – | – | 28 | 3 | 31 | 11.4 |
| 550 - 553 | Appendicitis .. .. | 15 | 1 | 16 | 9 | – | 9 | – | 2 | 2 | 24 | 3 | 27 | 9.9 |
| 750 - 779 | Congenital malformations .. | 13 | 9 | 22 | 1 | – | 1 | – | – | – | 14 | 9 | 23 | 8.4 |
| 370 - 389 | Inflammatory disease, eye, .. | 1 | 16 | 17 | – | – | – | – | – | – | 1 | 16 | 17 | 6.2 |
| 780 - 795 | Symptoms, ill-defined conditions | 12 | 2 | 14 | 2 | – | 2 | – | – | – | 14 | 2 | 16 | 5.9 |
| 560 - 561 | Abdominal hernia .. | 3 | 8 | 11 | – | – | – | – | 1 | 1 | 3 | 9 | 12 | 4.4 |
| 690 - 698 | Infections, skin, subcut tissue | 12 | – | 12 | – | – | – | – | – | – | 12 | – | 12 | 4.4 |
| 603 - 609 | Other urinary disease .. | 7 | 4 | 11 | – | – | – | – | – | – | 7 | 4 | 11 | 4.0 |
| 700 - 716 | Other disease skin, tissue .. | 7 | – | 7 | – | – | – | – | – | – | 7 | – | 7 | 2.6 |
| 512 - 527 | Other disease resp. system .. | 5 | 1 | 6 | – | – | – | – | – | – | 5 | 1 | 6 | 2.2 |
| 218 - 239 | Benign neoplasm .. | 1 | 4 | 5 | – | – | – | – | – | – | 1 | 4 | 5 | 1.8 |
| 390 - 398 | Disease ear, mastoid .. | 4 | 1 | 5 | – | – | – | – | – | – | 4 | 1 | 5 | 1.8 |
| 490 - 493 | Pneumonia .. .. | 5 | – | 5 | – | – | – | – | – | – | 5 | – | 5 | 1.8 |
| 570,572 - 578 | Other disease intestine .. | 5 | – | 5 | – | – | – | – | – | – | 5 | – | 5 | 1.8 |
| 590 - 594 | Nephritis, nephrosis .. | 3 | 2 | 5 | – | – | – | – | – | – | 3 | 2 | 5 | 1.8 |
| 731 - 740 | Other disease, bone, joint .. | 3 | 2 | 5 | – | – | – | – | – | – | 3 | 2 | 5 | 1.8 |
| Remainder | | 27 | 6 | 33 | 2 | – | 2 | – | 2 | 2 | 29 | 8 | 37 | 13.7 |
| All | All .. | 151 | 100 | 251 | 17 | – | 17 | – | 5 | 5 | 168 | 105 | 273 | 100 |

TABLE 7 PATIENT DAYS BY HOSPITAL AND WARD. NUMBER AND PERCENTAGE

| Hospital | Ward | Patient Days | |
|---|---|---|---|
| | | Number | Percentage |
| Christchurch | 1 | 99 | 4.0 |
| | 3 | 29 | 1.2 |
| | 4 | 8 | 0.3 |
| | 7 | 10 | 0.4 |
| | 8 | 31 | 1.3 |
| | 9A | 560 | 22.9 |
| | 9B | 1,163 | 47.5 |
| | 10 | 19 | .8 |
| | 11 | 49 | 2.0 |
| | 12A | 190 | 7.8 |
| | 12B | 59 | 2.4 |
| | 13A | 91 | 3.7 |
| | Rec | 1 | – |
| | All | 2,309 | 94.3 |
| Princess Margaret | A1 | 16 | 0.7 |
| | B1 | 25 | 1.0 |
| | A3 | 1 | – |
| | A4 | 81 | 3.3 |
| | All | 123 | 5.0 |
| Burwood | 5 | 17 | 0.7 |
| | All | 17 | 0.7 |
| All | All | 2,449 | 100 |

TABLE 8 PATIENT DAYS BY SEX, AGE-GROUP AND HOSPITAL

| Age-Group (Years) | Hospital | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Christchurch | | | Princess Margaret | | | Burwood | | | All | | |
| | Male | Female | All | Male | Female | All | Male | Female | All | Male | Female | All |
| Under 1 | 155 | 172 | 327 | – | 26 | 26 | 1 | – | 1 | 156 | 198 | 354 |
| 1 and under 2 | 170 | 116 | 286 | – | – | – | – | – | – | 170 | 116 | 286 |
| 2 and under 3 | 91 | 60 | 151 | – | – | – | – | – | – | 91 | 60 | 151 |
| 3 and under 4 | 67 | 60 | 127 | – | – | – | – | – | – | 67 | 60 | 127 |
| 4 and under 5 | 32 | 120 | 152 | – | – | – | – | 3 | 3 | 32 | 123 | 155 |
| 5 to 9 | 413 | 356 | 769 | 42 | 21 | 63 | – | 8 | 8 | 455 | 385 | 840 |
| 10 to 12 | 323 | 174 | 497 | 25 | 9 | 34 | – | 5 | 5 | 348 | 188 | 536 |
| All | 1,251 | 1,058 | 2,309 | 67 | 56 | 123 | 1 | 16 | 17 | 1,319 | 1,130 | 2,449 |

TABLE 9 PATIENT DAYS BY TYPE OF ADMISSION AND HAVING SURGERY BY HOSPITAL

| Hospital | Surgery | Type of Admission | | |
|---|---|---|---|---|
| | | Emergency | Waiting-list | All |
| Christchurch .. | Yes | 460 | 599 | 1,059 |
| | No | 1,111 | 139 | 1,250 |
| | All | 1,571 | 738 | 2,309 |
| Princess Margaret | Yes | 74 | - | 74 |
| | No | 49 | - | 49 |
| | All | 123 | - | 123 |
| Burwood .. | Yes | - | 11 | 11 |
| | No | - | 6 | 6 |
| | All | - | 17 | 17 |
| All .. | Yes | 534 | 610 | 1,144 |
| | No | 1,160 | 145 | 1,305 |
| | All | 1,694 | 755 | 2,449 |

TABLE 10 PATIENT DAYS BY REASON FOR ADMISSION AND HOSPITAL

| Hospital | Reason for Admission | | | | | |
|---|---|---|---|---|---|---|
| | Therapy | Investigation | Infectious | Other | Not given | All |
| Christchurch .. | 1,754 | 405 | 36 | 88 | 26 | 2,309 |
| Princess Margaret | 58 | 39 | - | 25 | 1 | 123 |
| Burwood .. | 17 | - | - | - | - | 17 |
| All .. | 1,829 | 444 | 36 | 113 | 27 | 2,449 |

TABLE 11 PATIENT DAYS BY DISEASE-GROUP, TYPE OF ADMISSION AND HOSPITAL

| Code Nos. | Disease-Group Description | Hospital | | | | | | | | | | | | Per Cent of Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Christchurch | | | Princess Margaret | | | Burwood | | | All | | | |
| | | E | W.L | All | E | W.L | All | E | W.L | All | E | W.L | All | |
| 510 - 511 | Hypertrophy Ts & As Peri.,Tons.,Abs | 30 | 130 | 160 | - | - | - | - | - | - | 30 | 130 | 160 | 6.5 |
| 800 - 999 | Accident poisoning, violence | 160 | 26 | 186 | 11 | - | 11 | - | - | - | 171 | 26 | 197 | 8.0 |
| 550 - 553 | Appendicitis .. .. | 164 | 3 | 167 | 78 | - | 78 | - | 6 | 6 | 242 | 9 | 251 | 10.2 |
| 750 - 779 | Congenital malformations .. | 190 | 249 | 439 | 1 | - | 1 | - | - | - | 191 | 249 | 440 | 18.0 |
| 370 - 389 | Inflammatory disease, eye .. | 4 | 80 | 84 | - | - | - | - | - | - | 4 | 80 | 84 | 3.4 |
| 780 - 795 | Symptoms ill-defined conditions | 131 | 33 | 164 | 4 | - | 4 | - | - | - | 135 | 33 | 168 | 6.9 |
| 560 - 561 | Abdominal hernia .. | 18 | 71 | 89 | - | - | - | - | 5 | 5 | 18 | 76 | 94 | 3.8 |
| 690 - 698 | Infections, skin, subcut tissue | 82 | - | 82 | - | - | - | - | - | - | 82 | - | 82 | 3.3 |
| 603 - 609 | Other Urinary disease .. | 93 | 40 | 133 | - | - | - | - | - | - | 93 | 40 | 133 | 5.4 |
| 700 - 716 | Other disease skin tissue .. | 56 | - | 56 | - | - | - | - | - | - | 56 | - | 56 | 2.3 |
| 512 - 527 | Other disease resp. system | 35 | 3 | 38 | - | - | - | - | - | - | 35 | 3 | 38 | 1.6 |
| 218 - 239 | Benign neoplasm .. | 50 | 26 | 76 | - | - | - | - | - | - | 50 | 26 | 76 | 3.1 |
| 390 - 398 | Diease ear, mastoid .. | 24 | 3 | 27 | - | - | - | - | - | - | 24 | 3 | 27 | 1.1 |
| 490 - 493 | Pneumonia .. .. | 85 | - | 85 | - | - | - | - | - | - | 85 | - | 85 | 3.5 |
| 570,572 - 578 | Other disease intestine .. | 92 | - | 92 | - | - | - | - | - | - | 92 | - | 92 | 3.8 |
| 590 - 594 | Nephritis, nephrosis .. | 90 | 5 | 95 | - | - | - | - | - | - | 90 | 5 | 95 | 3.9 |
| 731 - 740 | Other disease bone joint .. | 90 | 20 | 110 | - | - | - | - | - | - | 90 | 20 | 110 | 4.5 |
| Remainder | | 194 | 32 | 226 | 29 | - | 29 | - | 6 | 6 | 223 | 38 | 261 | 10.7 |
| All | All .. | 1,588 | 721 | 2,309 | 123 | - | 123 | - | 17 | 17 | 1,711 | 738 | 2,449 | 100 |

TABLE 12 DISCHARGES AND DEATHS AND PATIENT DAYS DURING THE SURVEY PERIOD BY SPECIALTY, AND TYPE OF ADMISSION; NUMBER AND PERCENTAGE

| Speciality | Patients | | | Patient Days | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Emergency | | Waiting List | | All | |
| | Emerg. | W. List | All | No. | % | No. | % | No. | % |
| General Medicine | 61 | 4 | 65 | 427 | 22.7 | 14 | 0.7 | 441 | 23.4 |
| General Surgery | 42 | 9 | 51 | 379 | 20.2 | 71 | 3.8 | 450 | 24.0 |
| Orthopaedic Surgery .. | 22 | 17 | 39 | 270 | 14.4 | 199 | 10.6 | 469 | 25.0 |
| Genito-urinary | 11 | 11 | 22 | 83 | 4.4 | 155 | 8.2 | 238 | 12.6 |
| Ophthalmic .. | 1 | 16 | 17 | 4 | 0.2 | 80 | 4.2 | 84 | 4.4 |
| E.N.T. .. | 10 | 43 | 53 | 64 | 3.4 | 135 | 7.2 | 199 | 10.6 |
| All .. | 147 | 100 | 247 | 1,227 | 65.3 | 654 | 34.7 | 1,881 | 100 |

TABLE 13 FREQUENCY DISTRIBUTION OF LENGTHS OF STAY FOR DISCHARGES AND DEATHS BY HOSPITAL

| Hospital | Number of Days in Length of Stay | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | >30 | All |
| Christchurch .. | 3 | 15 | 57 | 22 | 16 | 8 | 11 | 20 | 8 | 8 | 9 | 5 | 6 | 2 | 5 | 3 | 4 | 4 | 1 | 3 | 1 | – | 2 | 1 | 2 | 1 | – | 2 | 3 | – | 6* | 228 |
| Princess Margaret | – | 1 | 4 | – | 2 | – | 2 | 4 | – | 1 | – | – | – | 1 | 1 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 16 |
| Burwood .. | – | 1 | – | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 3 |
| All .. | 3 | 17 | 61 | 22 | 20 | 8 | 13 | 24 | 8 | 9 | 9 | 5 | 6 | 3 | 6 | 3 | 4 | 4 | 1 | 3 | 1 | – | 2 | 1 | 2 | 1 | – | 2 | 3 | – | 6 | 247 |

* The 6 lengths of stay are 41, 46, 50, 57, 66 and 89 days.

FIGURE 1 FREQUENCY DISTRIBUTION OF LENGTHS OF STAY FOR DISCHARGES AND DEATHS BY HOSPITAL

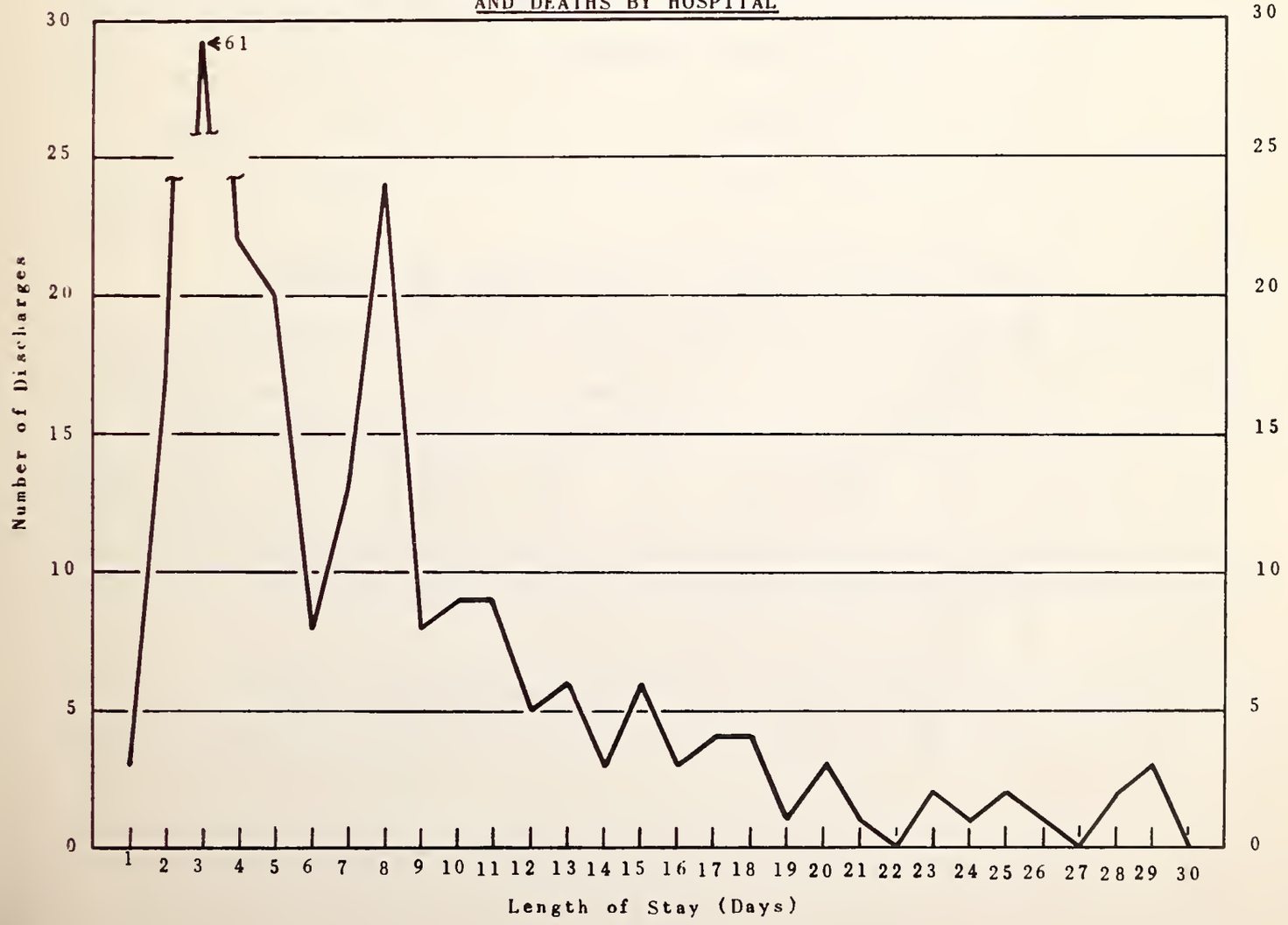

TABLE 14 FREQUENCY DISTRIBUTION OF NUMBERS OF DAYS SPENT IN HOSPITAL BY CHILDREN STILL IN HOSPITAL AT THE END OF THE SURVEY

| Hospital | Number of Days at Last Day of Survey | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | >30 | All |
| Christchurch .. | 2 | 2 | 1 | 1 | 2 | 2 | – | 1 | – | – | 1 | 1 | – | – | – | – | 1 | – | – | – | – | – | – | 1 | – | – | – | – | – | – | 8* | 23 |
| Princess Margaret | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 1 | – | – | – | – | – | – | 1 |
| Burwood .. | – | – | 2 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | 2 |
| All .. | 2 | 2 | 3 | 1 | 2 | 2 | – | 1 | – | – | 1 | 1 | – | – | – | – | 1 | – | – | – | – | – | – | 1 | 1 | – | – | – | – | – | 8 | 26 |

* The 8 numbers of days are 32, 34, 38, 43, 46, 75, 228 and 705.

TABLE 15 CHILDREN ADMITTED DURING THE SURVEY PERIOD BY DEPENDENCY CATEGORY, HOSPITAL AND TYPE OF ADMISSION.

| Dependency Category | Emergency | | | | Waiting List | | | | All | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CH. | P.M. | BWD. | All | CH. | P.M. | BWD. | All | CH. | P.M. | BWD. | All | |
| | | | | | | | | | | | | No. | % |
| 1 | 5 | 4 | – | 9 | 32 | – | 4 | 36 | 37 | 4 | 4 | 45 | 18.1 |
| 2 | 50 | 7 | – | 57 | 41 | – | – | 41 | 91 | 7 | – | 98 | 39.4 |
| 3 | 76 | 4 | – | 80 | 15 | – | 1 | 16 | 91 | 4 | 1 | 96 | 38.5 |
| 4 | 9 | 1 | – | 10 | – | – | – | – | 9 | 1 | – | 10 | 4.0 |
| All | 140 | 16 | – | 156 | 88 | – | 5 | 93 | 228 | 16 | 5 | 249 | 100 |

TABLE 16 CHILDREN DISCHARGED DURING THE SURVEY PERIOD BY DEPENDENCY CATEGORY, HOSPITAL AND TYPE OF ADMISSION

| Dependency Category | Emergency | | | | Waiting List | | | | All | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CH. | P.M. | BWD. | All | CH. | P.M. | BWD. | All | CH. | P.M. | BWD. | All | |
| | | | | | | | | | | | | No. | % |
| 1 | 11 | 14 | – | 25 | 10 | – | 2 | 12 | 21 | 14 | 2 | 37 | 15.3 |
| 2 | 58 | 1 | – | 59 | 69 | – | – | 69 | 127 | 1 | – | 128 | 53.1 |
| 3 | 55 | – | – | 55 | 16 | – | 1 | 17 | 71 | – | 1 | 72 | 29.9 |
| 4 | 4 | – | – | 4 | – | – | – | – | 4 | – | – | 4 | 1.7 |
| All | 128 | 15 | – | 143 | 95 | – | 3 | 98 | 223 | 15 | 3 | 241 | 100 |

TABLE 17 PATIENT DAYS IN EACH DEPENDENCY CATEGORY BY HOSPITAL AND WARD

| Hospital | Ward | Dependency Category | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | All |
| Christchurch .. | 1 | 10 | 88 | 1 | – | 99 |
| | 3 | 2 | 14 | 13 | – | 29 |
| | 4 | 4 | 1 | 2 | 1 | 8 |
| | 7 | 5 | 5 | – | – | 10 |
| | 8 | 12 | 19 | – | – | 31 |
| | 9A | – | 3 | 555 | 2 | 560 |
| | 9B | 68 | 845 | 249 | 1 | 1,163 |
| | 10 | 4 | 14 | 1 | – | 19 |
| | 11 | 20 | 21 | 7 | 1 | 49 |
| | 12A | 7 | 56 | 117 | 10 | 190 |
| | 12B | 5 | 23 | 18 | 13 | 59 |
| | 13A | 26 | 54 | 11 | – | 91 |
| | Rec | – | – | – | 1 | 1 |
| | All | 163 | 1,143 | 974 | 29 | 2,309 |
| Princess Margaret | A1 | 6 | 8 | 1 | 1 | 16 |
| | B1 | – | – | 25 | – | 25 |
| | A3 | – | – | – | 1 | 1 |
| | A4 | 54 | 23 | 4 | – | 81 |
| | All | 60 | 31 | 30 | 2 | 123 |
| Burwood .. | 5 | 15 | 1 | 1 | – | 17 |
| | All | 15 | 1 | 1 | – | 17 |
| All .. | All | 238 | 1,175 | 1,005 | 31 | 2,449 |

TABLE 18 PATIENT DAYS IN EACH DEPENDENCY CATEGORY BY AGE-GROUP AND HOSPITAL

| Hospital and Category | | Age-Group Years | | | | | | | All | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 – | 1 – | 2 – | 3 – | 4 – | 5 – 9 | 10 – 12 | No. | % |
| Christchurch .. | 1 | – | – | – | – | 3 | 60 | 100 | 163 | 6.6 |
| | 2 | – | 3 | 39 | 102 | 143 | 538 | 318 | 1,143 | 46.7 |
| | 3 | 316 | 269 | 112 | 25 | 6 | 169 | 77 | 974 | 39.8 |
| | 4 | 11 | 14 | – | – | – | 2 | 2 | 29 | 1.2 |
| | All | 327 | 286 | 151 | 127 | 152 | 769 | 497 | 2,309 | 94.3 |
| Princess Margaret | 1 | – | – | – | – | – | 32 | 28 | 60 | 2.4 |
| | 2 | – | – | – | – | – | 25 | 6 | 31 | 1.3 |
| | 3 | 25 | – | – | – | – | 5 | – | 30 | 1.2 |
| | 4 | 1 | – | – | – | – | 1 | – | 2 | 0.1 |
| | All | 26 | – | – | – | – | 63 | 34 | 123 | 5.0 |
| Burwood .. | 1 | – | – | – | – | 3 | 7 | 5 | 15 | 0.7 |
| | 2 | – | – | – | – | – | 1 | – | 1 | – |
| | 3 | 1 | – | – | – | – | – | – | 1 | – |
| | 4 | – | – | – | – | – | – | – | – | – |
| | All | 1 | – | – | – | 3 | 8 | 5 | 17 | 0.7 |
| All .. | 1 | – | – | – | – | 6 | 99 | 133 | 238 | 9.7 |
| | 2 | – | 3 | 39 | 102 | 143 | 564 | 324 | 1,175 | 48.0 |
| | 3 | 342 | 269 | 112 | 25 | 6 | 174 | 77 | 1,005 | 41.0 |
| | 4 | 12 | 14 | – | – | – | 3 | 2 | 31 | 1.3 |
| | All | 354 | 286 | 151 | 127 | 155 | 840 | 536 | 2,449 | 100 |
| | % | 14.5 | 11.6 | 6.0 | 5.1 | 6.3 | 34.5 | 22.0 | 100 | |

TABLE 19 EQUIVALENT NUMBERS OF PATIENTS IN HOSPITAL DURING THE SURVEY PERIOD BY HOSPITAL, DEPENDENCY CATEGORY AND DAY OF WEEK

| Hospital | Dependency Category | Day of Week | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Mon | Tue | Wed | Thur | Fri | Sat | Sun | All |
| Christchurch .. | 1 | 6.9 | 5.4 | 7.5 | 4.5 | 3.9 | 4.2 | 5.4 | 5.4 |
| | 2 | 37.5 | 39.6 | 42.6 | 39.6 | 39.6 | 34.2 | 31.2 | 37.8 |
| | 3 | 32.4 | 34.2 | 36.0 | 36.6 | 34.2 | 29.4 | 29.4 | 33.2 |
| | 4 | 1.2 | 1.2 | 0.6 | 0.6 | 0.9 | 0.9 | 0.9 | 0.9 |
| | All | 78.3 | 80.7 | 87.0 | 81.3 | 78.9 | 69.0 | 67.2 | 77.5 |
| Princess Margaret | 1 | 2.7 | 2.4 | 2.1 | 2.7 | 1.8 | 1.2 | 1.8 | 2.1 |
| | 2 | 0.9 | 0.6 | 1.2 | 0.9 | 1.2 | 1.2 | 1.5 | 1.1 |
| | 3 | 0.9 | 0.9 | 1.2 | 0.9 | 0.9 | 1.5 | 0.9 | 1.0 |
| | 4 | – | 0.3 | – | 0.3 | – | – | – | 0.1 |
| | All | 4.5 | 4.2 | 4.5 | 4.8 | 3.9 | 3.9 | 4.2 | 4.3 |
| Burwood .. | 1 | – | 0.6 | 0.6 | 0.2 | 0.9 | 0.9 | 0.6 | 0.5 |
| | 2 | – | – | – | 0.2 | – | – | – | – |
| | 3 | – | – | – | 0.2 | – | – | – | – |
| | 4 | – | – | – | – | – | – | – | – |
| | All | – | 0.6 | 0.6 | 0.6 | 0.9 | 0.9 | 0.6 | 0.6 |
| All .. | 1 | 9.6 | 8.4 | 10.2 | 7.4 | 6.6 | 6.3 | 7.8 | 8.0 |
| | 2 | 38.4 | 40.2 | 43.8 | 40.5 | 40.8 | 35.4 | 32.7 | 38.8 |
| | 3 | 33.3 | 35.1 | 37.2 | 37.5 | 35.1 | 30.9 | 30.3 | 34.2 |
| | 4 | 1.2 | 1.5 | 0.6 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 |
| | All | 82.8 | 85.5 | 92.1 | 86.7 | 83.7 | 73.8 | 72.0 | 82.3 |

(i) The above are mean values obtained by taking three times the sample mean values.
(ii) The values for 'All' do not necessarily agree with the corresponding totals.

TABLE 20 FREQUENCY DISTRIBUTION OF THE NUMBER OF CONSECUTIVE DAYS IMMEDIATELY BEFORE DISCHARGE ON WHICH A CHILD DID NOT RECEIVE ANY ITEM OF SPECIAL NURSING CARE BY REASON FOR ADMISSION

| Reason for Admission | Number of Consecutive Days | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | >10 | All |
| Therapy .. | 117 | 35 | 16 | 6 | 3 | 4 | 2 | 5 | 3 | 6 | 1 | 1 | 199 |
| Investigation | 18 | 2 | 5 | 2 | 3 | 2 | 1 | 1 | 1 | 1 | – | 1 | 37 |
| Infectious | 2 | – | 1 | – | – | – | – | – | – | – | – | – | 3 |
| Other .. | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Not given | 1 | – | – | 1 | – | – | – | – | – | – | – | – | 2 |
| All .. | 138 | 37 | 22 | 9 | 6 | 6 | 3 | 6 | 4 | 7 | 1 | 2 | 241 |

TABLE 21 FREQUENCY DISTRIBUTION OF THE NUMBER OF CONSECUTIVE DAYS IMMEDIATELY BEFORE DISCHARGE ON WHICH A CHILD DID NOT RECEIVE ANY ITEM OF SPECIAL NURSING CARE BY GROUPS OF ADMISSION

| | Admission | Number of Consecutive Days | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | >10 | All |
| (i) | Medical and surgical not having an operation .. | 43 | 14 | 16 | 5 | 6 | 5 | 1 | 6 | 1 | 5 | – | 1 | 103 |
| (ii) | Surgical having an operation – disregarding minor dressing. | 64 | 27 | 10 | 5 | 3 | 4 | 7 | 9 | 5 | 2 | 1 | 1 | 138 |
| (iii) | Surgical having an operation – not disregarding minor dressing | 95 | 23 | 6 | 4 | – | 1 | 2 | – | 3 | 2 | 1 | 1 | 138 |
| (iv) | Total of (i) and (ii) .. | 107 | 41 | 26 | 10 | 9 | 9 | 8 | 15 | 6 | 7 | 1 | 2 | 241 |
| (v) | Total of (i) and (iii) .. | 138 | 37 | 22 | 9 | 6 | 6 | 3 | 6 | 4 | 7 | 1 | 2 | 241 |

TABLE 22 EQUIVALENT BEDS BY HOSPITAL DEPENDENCY CATEGORY AND PERCENTAGE OCCUPANCY.

| Hospital and Dependency Category | | Patient Days (3 x Sample) | Percentage Occupancy | | |
|---|---|---|---|---|---|
| | | | 100 | 90 | 85 |
| Christchurch .. | 1 | 489 | 5.6 | 6.2 | 6.5 |
| | 2 | 3,429 | 39.0 | 43.3 | 45.8 |
| | 3 | 2,922 | 33.2 | 36.9 | 39.1 |
| | 4 | 87 | 0.9 | 1.0 | 1.2 |
| | All | 6,927 | 78.7 | 87.4 | 92.6 |
| Princess Margaret | 1 | 180 | 2.1 | 2.3 | 2.5 |
| | 2 | 93 | 1.1 | 1.2 | 1.3 |
| | 3 | 90 | 1.0 | 1.2 | 1.2 |
| | 4 | 6 | 0.1 | 0.1 | 0.1 |
| | All | 369 | 4.3 | 4.8 | 5.1 |
| Burwood .. | 1 | 45 | 0.5 | 0.5 | 0.6 |
| | 2 | 3 | 0.05 | 0.05 | 0.05 |
| | 3 | 3 | 0.05 | 0.05 | 0.05 |
| | 4 | - | - | - | - |
| | All | 51 | 0.6 | 0.6 | 0.7 |
| All .. | 1 | 714 | 8.2 | 9.0 | 9.6 |
| | 2 | 3,525 | 40.15 | 44.55 | 47.15 |
| | 3 | 3,015 | 34.25 | 38.15 | 40.35 |
| | 4 | 93 | 1.0 | 1.1 | 1.3 |
| | All | 7,347 | 83.6 | 92.8 | 98.4 |

TABLE 23 PAEDIATRIC WAITING-LIST BY DATE AND SPECIALTY

| Specialty | Number Waiting At | | |
|---|---|---|---|
| | June 1962 | Sept. 1962 | Jan. 1963 |
| General Surgery | 10 | 15 | - |
| Orthopaedic Surgery .. | 30 | 24 | 6 |
| Genito-urinary | 15 | 21 | 6 |
| Opthalmic .. | 121 | 100 | 98 |
| E.N.T. .. | 300 | 390 | 453 |
| Medical .. | - | - | - |
| All | 476 | 550 | 563 |

TABLE 24 EQUIVALENT BEDS BY SPECIALITY DISTRIBUTED ACCORDING TO PATIENT DAYS RECORDED FOR DISCHARGES AND DEATHS

| Specialty | Patient Days | | Equivalent Beds | |
|---|---|---|---|---|
| | Number | % | 100% | 90% |
| General Medicine | 441 | 23.4 | 19.6 | 21.8 |
| General Surgery .. | 450 | 24.0 | 20.1 | 22.3 |
| Orthopaedic Surgery | 469 | 25.0 | 20.9 | 23.2 |
| Genito-urinary .. | 238 | 12.6 | 10.5 | 11.7 |
| Ophthalmic .. | 84 | 4.4 | 3.6 | 4.0 |
| E.N.T. .. | 199 | 10.6 | 8.9 | 9.9 |
| All .. | 1,881 | 100 | 83.6 | 92.8 |

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